



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,743	01/22/2004	Nicolas St.-Germain	13726	5593
7590	01/23/2006			
ORUM & ROTH 53 W. JACKSON BLVD CHICAGO, IL 60604			EXAMINER VY, HUNG T	
			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/762,743	Applicant(s) ST.-GERMAIN, NICOLAS	
	Examiner Hung T. Vy	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


TAN HO
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 25, line 5, the phrase "a status signal" means single signal but the next line, the phrase "at least one of a current traveling through the at least one LED and a voltage applied across the at least one LED" means a plural signal. The claim 25 is rendered indefinite.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16, and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Eckel et al., U.S. patent No. 6,388,399.

Claims 1,4-7,10-16, 21-24 Eckel et al. disclose an intelligent light emitting diode; comprising: a voltage source (70), said voltage source continuously supplying a voltage to said traffic signal (See column 10, line 23-31); an electronic switch (See column 2, line 17-29); an integrated flasher (See column 3, line 7 showing the light control unit to flash light) operatively coupled to the electronic switch to toggle a state of the electronic switch at a predetermined rate; at least one light element (See fig. 14); a power supply (338) for powering the at least one light element (See fig. 14); a dimming interface for dimming the at least one light element (See fig. 11); a controller (340) for generating an appropriate command signal based on one or more status signals (see fig. 14), said status signals comprise one or more of the following: light element current, light element voltage, light output (450) (see fig. 18), input current and input voltage and said appropriate command comprise one or more of the following: an on or off command, a dimming command (See column 3, line 32-43), a flashing command, and an emergency disconnection signal; a light sensor (450) for detecting light output (See fig. 18) of the at least one light element; a voltage detecting circuit (62) for the light element voltage (See column 10, line 36-45), and the output voltage or combinations thereof; and a current monitoring circuit (See column 5, line 50-51) for measuring the light element current, the output current, or combinations thereof.

Claims 2-3, Eckel et al. discloses the light sensor is photocell (See fig. 20), one light element is an LED array (344)(See fig. 14).

Art Unit: 2821

Claims 8-9, it is inherent that Eckel et al. discloses an emergency disconnect because on column 10, line 31-35, Eckel et al. discloses a momentary contact switch the external power supply, this providing a reset function.

4. Claims 1-2, 4-5, 9, 16, and 21-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Lys et al., U.S. pub No. 2004/0212321.

With respect to claims 1, 4-5, 16, and 21-25, Lys et al. discloses an intelligent light emitting diode (LED) module for traffic signal (see paragraph 0067); comprising: an electronic switch that continuously received a voltage from an associated voltage source and conveys the voltage to at least one other component on the LED module (see paragraph 0072 or 0117); a flasher operatively coupled to the electronic switch to toggle a state of the electronic switch at a predetermined rate (See paragraph 0115 (toggle), 0098 (PWM)(PAM)(PCM), 0122(flickering effects)). A power supply that receives power distributed by the electronic switch; at least one LED (104) that is powered by the power supply (500); and a dimming interface operatively coupled to the power supply for dimming the at least one LED (see paragraph 0103); said module generates at least one status signal indicative of one or more of the following current traveling through the at least one LED; a voltage applied across the at least one LED, and light energy emitted from the at least one LED (See paragraph 0098, 0107) and conveys the at least one status signal to an associated controller that generate a command in response (see paragraph 0103), the command is based the at least one status signal and controls the at least one LED of the LED module, said command, a dimming command (see paragraph 0103)(see fig. 7).

Respect to claim 2, Lys et al. discloses including a light sensor (see paragraph 00101,0107).

Respect to claim 9, Lys et al. disclose wherein the emergency disconnect command opens a circuit supplying power to the at least one LED (See paragraph 0136-0137).

5. Claims 1, 16, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hochstein, U.S. patent No. 5,661,645.

With respect to claims 1, 16, and 21, Hochstein discloses an intelligent light emitting diode (LED) module for traffic signal; comprising: an electronic switch (80) that continuously received a voltage from an associated voltage source and conveys the voltage to at least one other component on the LED module (see fig. 7); a flasher (80) operatively coupled to the electronic switch to toggle a state of the electronic switch at a predetermined rate (see fig. 80). A power supply (22) that receives power distributed by the electronic switch; at least one LED (12,14) that is powered by the power supply (22); and a dimming interface operatively coupled to the power supply for dimming the at least one LED (see column 10, line 3-60); said module generates at least one status signal indicative of one or more of the following current traveling through the at least one LED; a voltage (48) applied across the at least one LED, and conveys the at least one status signal to an associated controller that generate a command in response (see column 10, line 62-68 and column 11, line 1-5), the command is based the at least one status signal and controls the at least one LED of the LED module, said command, a dimming command (see column 10, line 62-68 and column 11, line 1-5).

Response to Arguments

6. Applicant's arguments filed on 12/22/2005 have been fully considered but they are not persuasive. Applicant made the following arguments:

i. "In Figure 18, Eckel et al. discloses a light sensor unit 410. The light sensor unit 410 includes an ambient light-sensing portion that senses light. This portion of the light sensor 410 includes ambient light sensor circuitry 450 that senses ambient light and generates an analog signal represent the level of light sensed by sensor 450. Hence, Eckel, et al. teaches a light sensor that senses ambient light (not light emitted from at least one LED residing within an intelligent Led module) and circuitry that provides a lighted representation of a state of an external light source. However, Eckel et al. does not contemplate an intelligent module that generates a status signal indicative of a current traveling through, a voltage applied across and/or a light energy emitted from at least one LED residing within the intelligent module as recited in the subject claims " page 9, first paragraph.

ii. "Eckel et al. is silent regarding generating a command signal based on such status signal. In addition, since Eckel et al. does not teach or suggest an intelligent module with an LED that generates such status signal, Eckel et al. cannot teach that this status signal is used to generate an on or off command, a dimming command, a flashing command, and/or

an emergency disconnection command signal for the at least one LED residing within the LED module”, page 9, second paragraph.

iii. “One of these sections teach or suggest an intelligent LED module that generates a status signal indicative of various opto-electrical characteristics of an LED residing within the intelligent LED module, wherein the status signal is used to generate a command signal used to control the LED residing within the intelligent LED module”, paper 10, third paragraph.

iv. “Hochstein et al. does not teach or suggest each and every element as recited in the subject claims. The examiner references column 10, line 62 - column 11, line 5 to support his assertion. However, this section of Hochstein, et al. does not teach or suggest such aspects. Instead, this section teaches using certain switchmode, regulating power supplies to power LED signals from half wave rectified AC power supplies, wherein upon detecting a half wave signal, the switchmode power supply reduces its output voltage to the LED array. In contrast, the subject claims recite an intelligent LED module with at least one LED in which the intelligent LED module generates at least one status signal indicative of one or more of a current traveling through the at least one LED, a voltage applied across the at least one LED and a light energy emitted from the at least one LED, wherein the status signal is used to generate a 'command signal, including, a dimming command, a flashing command, and an emergency

disconnection command, and controls the at least one LED residing within the intelligent LED module, as recited in the subject claims. Hochstein, et al. does not teach or suggest such aspects and, thus, this rejection should be withdrawn", page 11, first and second paragraph.

In response to Applicant's argument I above, the applicant's argument are not persuasive because the claim does not require a light sensor that senses light emitted from at least one LED siding within an intelligent LED. The claim recites module generates at least one status signal indicative of **one or more** of the following: a light energy emitted from the at least one LED. They claim requires at least one the status signal and a light energy emitted from LED (not direct form LED) so Eckel et al. discloses a light sensor that senses ambient light from the LEDS. Fig. 18 discloses an intelligent module 440 that generates at least one status signal indicative of **one or more of** a current, a voltage as recited in the subject claims.

In response to Applicant's argument ii above, the applicant's arguments are not persuasive because Eckel et al. discloses controller (440) generates a command signal based on such status signal as light sensor, power supply (see fig. 18).

In response to Applicant's argument iii above, the applicant's arguments are not persuasive because Lys, et al. discloses in paragraph [0098] the processor and drive circuitry to control the light sources include, but not limited to, pulse code modulated signal analog control signal (e.g. current control signals, voltage control signal) and in paragraph, Lys, et al. discloses light sensors to sense a light energy emitted from the at least one LED to the processor (102) and the processor uses the status signal to

generate a command signal used to control the LED. From the foregoing, it is readily apparent that Lys et al. anticipate or teaches each and every element as recited in the subject claims.

In response to Applicant's argument iv above, the applicant's arguments are not persuasive because Hochstein discloses one status signal indicative of one or more of a current traveling through the at least one LED, a voltage applied across the at least one LED and a light energy emitted from the at least one LED (see fig. 6a) and wherein the status signal is used to generate a command signal, including, a dimming command (see column 10, line 6).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Vy whose telephone number is 571-2721954. The examiner can normally be reached on 8.30am - 5.30 pm.

Art Unit: 2821

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 16, 2006.
Hung T. Vy
Art Unit 2821


TAN HO
PRIMARY EXAMINER